

**A RECORD OF *DANAUS CHRYSIPPUS CRATIPPUS* (C. FELDER)
(LEPIDOPTERA: NYMPHALIDAE: DANAINAE) FROM
THURSDAY ISLAND, TORRES STRAIT**

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Abstract

A female specimen of *Danaus chrysippus cratippus* (C. Felder) is recorded from Thursday Island, Torres Strait, Queensland. This constitutes the second known specimen of this taxon from Australia and the first record for Queensland. Due to the paucity of reference material of *D. petilia* (Stoll) from Torres Strait, it is unclear whether this specimen of *D. c. cratippus* is a vagrant or constitutes part of a natural sympatric distribution with *D. petilia* in northern Australia. The known distribution of *D. petilia* in Torres Strait, based primarily on observation records, is provided and encompasses almost all inhabited islands. Based on these records its temporal distribution in Torres Strait appears irregular, perhaps reflecting its dispersive and nomadic movements among the islands.

Introduction

The predominately Australian species *Danaus petilia* (Stoll) [originally described as *Papilio petilia* Stoll], has recently been reinstated to its former specific rank by Lushai *et al.* (2005). In Australia, *D. petilia* was considered specifically distinct by all early major butterfly workers, *e.g.* Masters (1873), Olliff (1889), Miskin (1891), Waterhouse (1903) and Rainbow (1907), until Waterhouse and Lyell (1914) incorporated it into the Old World species *Danaus chrysippus* (L.). Since then, all major Australian butterfly references to this species (Waterhouse 1932, Common 1964, Common and Waterhouse 1972, 1981, Zalucki 1999, Braby 2000) concurred with Waterhouse and Lyell (1914), including Talbot (1943) in his review of *Danaus* Kluk (Lushai *et al.* 2005). All concluded that *D. c. petilia* was the most easterly occurring subspecies of *D. chrysippus*, although Zalucki (1999) had suggested that *D. c. petilia* could be given specific status.

Although primarily Australian, *D. petilia* does occur infrequently in neighbouring areas (Lushai *et al.* 2005). Ackery and Vane-Wright (1984) reported it as uncommon in New Guinea, including its eastern islands and in the region west of the New Guinea mainland (Lushai *et al.* 2005). Parsons (1999) also considered it uncommon and local in Papua New Guinea with an occasional record from the Moluccas, west of New Guinea. Further east it is an uncommon visitor to the Solomon Islands, Vanuatu, New Caledonia and New Zealand (Ackery and Vane-Wright 1984, Tennent 2002). Small numbers of specimens of *D. petilia* are also known from Christmas and Cocos (Keeling) Islands in the Indian Ocean (Ackery and Vane-Wright 1984). The closest area to Australia where true *D. chrysippus* is known is eastern Indonesia where, from the Moluccas to Timor, Tanimbar and the Aru Islands, the species is referable to *D. c. cratippus* (C. Felder) (Braby 2000,

Lushai *et al.* 2005). *D. chrysippus* is highly dispersive and therefore it is not surprising that scattered records of *D. c. cratippus* are known from New Guinea and Australia (Ackery and Vane-Wright 1984, Braby 2000).

In Australia, *D. chrysippus* is currently known from only two specimens: a female attributed to 'form *dorippus*' allegedly from Roebourne, Western Australia and housed in The Natural History Museum, London (Talbot 1943, Common and Waterhouse 1981, Braby 2000) [typical *D. c. dorippus* (Klug) is from East Africa (Lushai *et al.* 2005) but the 'form' is widespread]; and a male *D. c. cratippus* in the Australian National Insect Collection from Cobourg Peninsula, Northern Territory, collected in January 1977 (Common and Waterhouse 1981, Braby 2000). In this paper the discovery of an additional specimen of *D. c. cratippus* is reported, collected flying on the edge of monsoon vine forest at the western end of Thursday I., Torres Strait.

Abbreviations used for observation and collection records are: AIK – A.I. Knight; AM – Australian Museum, Sydney; CGM – C.G. Miller; JWT – J.W. Turner (ex DPIF, Qld); KH – K. Houston (ex DPIF, Qld); PSV – P.S. Valentine; SJJ – S.J. Johnson; TAL – T.A. Lambkin; TLIKC – joint collection of T.A. Lambkin and A.I. Knight, Brisbane; UQ – University of Queensland, St Lucia, Brisbane.

Danaus chrysippus cratippus (C. Felder)

(Fig. 1)

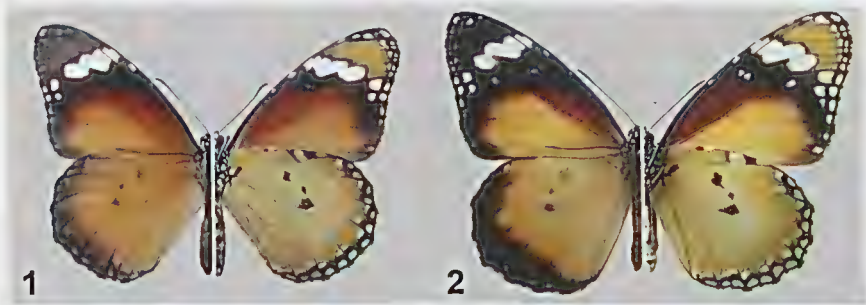
Material examined. QUEENSLAND (TORRES STRAIT): 1 ♀, Green Hill, Thursday Island, 25.iv.1995, TAL (TLIKC).

Discussion. During a recent examination of specimens referred to *D. petilia* in the author's collection, it was noted that the external facies of a female specimen collected from Thursday Island, Torres Strait (Fig. 1), generally matched [except in size] that of *D. c. cratippus* as outlined in Lushai *et al.* (2005) and verified by M.P. Zalucki and G. Daniels (UQ).

Despite Braby's (2000) indication that *D. petilia* (Fig. 2) is common in the Australian tropics and the many records of sightings on almost all inhabited Torres Strait islands, there are few Torres Strait specimens known in collections. This is most likely the result of a general neglect of this species by butterfly collectors, due to its general commonness in Australia.

Currently in Torres Strait what is believed to be *D. petilia* has been observed at various times on almost all inhabited islands: in the north of the strait on Boigu, Dauan and Saibai Islands; in the east on Darnley and Murray; in the central region on Badu, Moa and Yam; and in the south on Hammond, Horn, Prince of Wales and Thursday Islands (Mathew 1885, De Baar 1988, Talbot 1943, Valentine and Johnson 1993, observation and collection records of AIK, AM, CGM, JWT, KH, SJJ, PSV and TAL). In addition, the temporal records of *D. petilia* on almost all Torres Strait islands appear irregular,

perhaps reflecting its dispersive and nomadic movements among the islands (Tennent 2002, Lushai *et al.* 2005).



Figs 1-2. *Danaus* spp. Both figures to scale, upperside left, underside right [forewing lengths in parentheses]. (1) *D. chrysippus cratippus*, female: Green Hill, Thursday Island, Torres Strait, Qld, 25.iv.1995, TAL [35 mm]; (2) *D. petilia*, female: Jamboree Heights, Brisbane, Qld, 20.ix.1980, TAL [38 mm].

Taking into account that larval host plants of *D. petilia* are not often observed on many of the Torres Strait islands (TAL unpublished data), its irregular occurrence on these islands might reflect local introductions and extinctions of the host plant and the butterfly. Therefore, due to the paucity of Torres Strait material available for examination, it is unclear whether the specimen of *D. c. cratippus* reported here is an isolated vagrant to Torres Strait or represents part of a natural sympatric distribution with *D. petilia* in northern Australia. Certainly, more intensive collecting of *D. petilia* and its congeners in the tropical areas of Australia would be rewarding in supplementing the current knowledge of their distributions in Australia.

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